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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,269	07/26/2006	Heike Becker	294001US0PCT	8383
22850 7590 06/26/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER NGUYEN, THUY-AI N				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
06/26/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/587,269

Applicant(s)

BECKER ET AL.

Examiner

THUY-AI N. NGUYEN

Art Unit

1796

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Applicant's responses filed on April 09, 2009 have been fully considered. Claims 1, 9 and 12 are amended. Claims 1-4, and 6- 14 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 - 4, 6 - 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Littig et al. (US. 6,573,228).

Regarding claim 1, Littig et al. teach a composition comprising polyalkyleneamines (PA unit, (col. 3: 30- col. 4: 55), which is grafted with ethyleneimine, and then reacted with the mixture of crosslinking agents including unsaturated carboxylic acid (acrylic and methacrylic acids) and aziridine (col. 9: 20- 45). Littig et al. further teach the composition further comprising surfactants (col. 10: 52- col. 13: 52), water soluble organic solvent such as polyethylene glycol (PEG, col. 17: 22- 28), polyols (col. 6: 58- 67), alkanolamine (alkanolammonium salt, col. 14: 15- 27), carboxylic acid (col. 16: 27- 54), builder, additives (col. 13: 55- col. 15: 57), and water (col. 18: 5-10).

Littig et al. do not specifically teach the product of polyalkyleneamines which is produce from the reaction of grafted polyalkyleneamines, aziridine and unsaturated carboxylic acid in step by step correspondingly as said by the applicant. However,

according to the MPEP, changing in steps of the process or splitting of one step into two was held to not patentably distinguish process, (see Ex parte Rubin, 128 USPQ 440, MPEP. 2144.04 IV-c).

Regarding claim 2, Littig et al. teach the composition, wherein:

a) the fabric enhancement system (or component A) is present in an amount of from 0.01 to 20 percent (col. 2: 33- 46),

b) surfactants (or component B) is from 0.01 to 60 percent by weight of the composition (col. 10: 53- 65),

c) ethanol, propanediol (or component C) is present in an amount of from 3.36 percent by weight of the composition (col. 19, table 1),

d) and f) alkanolammonium salts (component D) and builder (component F) are present in amount of from 1 to 50 percent by weight of the composition (col. 14: 5- 14),

e) carboxylic acid (or component E, col. 16: 27- 54),

g) additives (col. 13: 55- 64), and

h) water (col. 18: 10- 11).

Regarding claim 3, Littig et al. teach the composition, wherein component Aa is polyalkyleneamine (col. 3: 38- 65).

Regarding claim 4, Littig et al. teach the composition, wherein the component Ab is epihalohydrins (col. 6: 48- 67).

Regarding claim 6, Littig et al. teach the composition, wherein component B is fatty alcohol sulfate, alkyl ether sulfates, and fatty alcohol alkoxyates (col. 11: 1- col. 12: 66).

Regarding claim 7, Littig et al. teach the composition, wherein the component C is ethanol, propanediol (table 1, col. 19).

Regarding claim 8, Littig et al. teach the composition comprising monoethanolamine (table 1, col. 19), and component E including acetic acid (col. 9: 45-55).

Claim 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scherr et al. (US. 5,641,855).

Regarding claims 9 and 10, Scherr et al. teach a process for preparation of water soluble or water dispersible compound comprising:

- crosslinking of polyalkylenepolyamines, polyamidoamines grafted with ethyleneimine, polyether- amines, and the mixtures thereof, with
- monoethylenically unsaturated carboxylic acids, salts, esters, amides, or nitrile of monoethylenically unsaturated carboxylic acid, or the mixtures thereof,
- bifunctional crosslinkers having a halo- hydrin, glycidyl, aziridine, or isocyanate unit (abstract).

Scherr et al. do not specifically teach the process, wherein grafted polyalkyleneamines react with aziridine and unsaturated carboxylic acid in step by step correspondingly as said by the applicant. However, according to the MPEP, changing in steps of the process or splitting of one step into two was held to not patentably distinguish process, (see Ex parte Rubin, 128 USPQ 440, MPEP. 2144.04 IV-c).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Littig et al. (US. 6,573,228) in view of Boeckh et al. (US. 2003/0195135).

Regarding claim 12, Littig et al. teach a detergent composition comprising the compound as described above and the method of using the composition of that compound on fabric (col. 18: 51- col. 19- 25), wherein the method comprising the step of contacting the fabric with the detergent composition of the said compound. Littig et al. do not teach using the composition on a hard surface. Boeckh et al. teach the cleaning composition for treating the hard surface, wherein the composition comprises water soluble polyamidoamines grafted with ethyleneimine, epichlorohydrin [0071-0072], and water soluble polyethyleneimine crosslinked with epichlorohydrin and monocarboxylic [0069]. Littig et al. and Boeckh et al. are analogous art because they are in the same field of endeavor, namely, a cleaning composition comprising the similar compound which is used as soil release agent. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use composition of in the teaching of Littig et al. on the surface in order to bring out variety benefit of the composition.

Claims 11, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Littig et al. (US. 6,573,228) as applied to claim 1 above, and further in view of Boeckh et al. (US. 2003/0195135).

Regarding claims 11,13 and 14, Littig et al. teach a detergent composition comprising the compound as described above and the method of using the composition

of that compound on fabric (col. 18: 51- col. 19- 25), wherein the method comprising the step of contacting the fabric with the detergent composition of the said compound. Littig et al. do not teach using the composition on a hard surface. Boeckh et al. teach the cleaning composition for treating the hard surfaces including glass and floor [0104], wherein the composition comprises water soluble polyamidoamines grafted with ethyleneimine, epichlorohydrin [0071- 0072], and water soluble polyethyleneimine crosslinked with epichlorohydrin and monocarboxylic [0069]. Littig et al. and Boeckh et al. are analogous art because they are in the same field of endeavor, namely, a cleaning composition comprising the similar compound which is used as soil release agent.. At the time of the invention, it would have been obvious to one of ordinary skill in the art to use composition of in the teaching of Littig et al. on the surface in order to bring out variety benefit of the composition.

Response to Arguments

Applicant's arguments filed on October 17, 2008 have been fully considered but they are not persuasive.

According to the argument of claims 1-4, and 6- 8, applicant argues that Littig et al. do not disclose mono-ethylenically unsaturated carboxylic acid. This is not right when in the teaching of Littig et al. mono-ethylenically unsaturated carboxylic acid including acrylic and methacrylic acid reacting with grafted polyalkyleneimine (col. 9: 18- 32). The saturated monocarboxylic acid (capping unit) of Littig et al. (col. 5: 60- 65) is another option in the teaching of Littig et al. Applicant also argues that the reaction

forms the Michael product which is not mentioned in the claim. However, because Littig et al. disclose the same unsaturated carboxylic acid (acrylic acid, see the rejection above), Littig et al. should have the same Michael product as said.

Applicant argues there is no amidation of the crosslink product take place in the preparation process according to the invention. This is not persuasive because the product from the amidation process has been claimed in the invention which is "polyamidoamine" (claim 1).

According to the argument of claims 9- 10, applicant argues that Scherr et al. disclose a process with different steps of reaction which should not lead to the same product as said in the invention. Because polyalkylenepolyamine or polyamidoamine grafted with ethyleneimine is a long chain, there is a chance that the product of **aa**, **ab**, and **ac** are the same when the amount of **ab** and **ac** are minimal regardless of the steps of the reaction.

According to the argument of claims 11- 14, applicant argues that Boeck et al. and Littig et al. cannot be combinable because Boeck et al. disclose a process, wherein a composition comprises cationically modified particulate, hydrophobic polymers instead of a water- soluble polymer as said by the applicant. This is not persuasive when in the teaching of Boeck et al. the cationic modified compound includes polyamidoamine grafted with ethyleneimine which is also water soluble. Because Littig et al. and Boeck et al. are cleaning composition, and have similar compound, they are combinable.

Because the rejections are deemed proper, claims 1-4 and 6- 9 stand rejected, therefore, made final.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THUY-AI N. NGUYEN whose telephone number is (571)270-3294. The examiner can normally be reached on Monday-Friday: 8:30 a.m. - 5:00 p.m. eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

THA

/Mark Eashoo/

Supervisory Patent Examiner, Art Unit 1796